

Indiana Department of Environmental Management
Office of Air Quality
Indianapolis, IN

Subject: Exceptional Events Flagging for Fireworks Event

Parameter: PM_{2.5}

Site: Jeffersonville

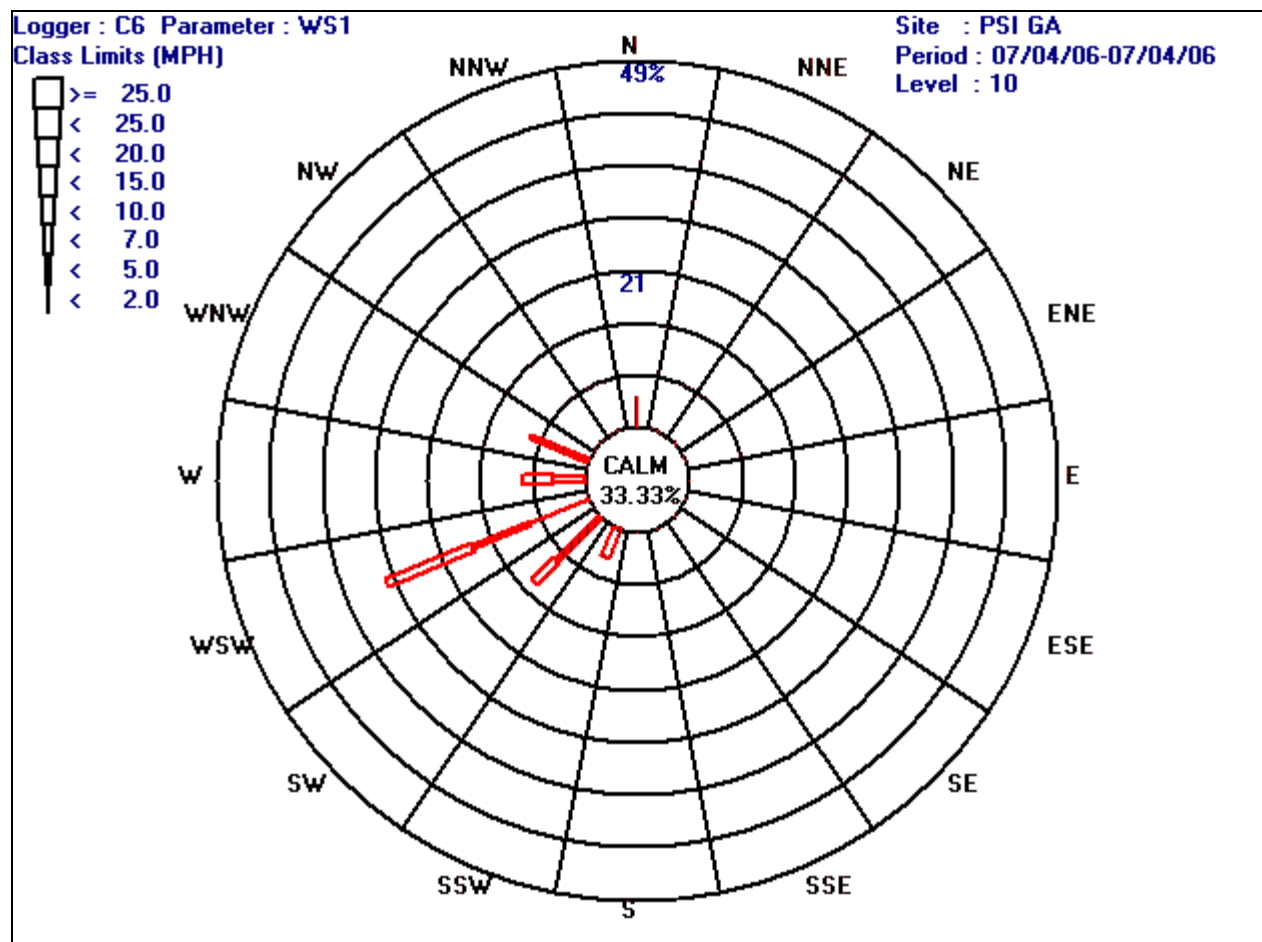
Dates: July 4, 2006

Reason: The Jeffersonville / Louisville Metro community like many large communities has a tradition of celebrating the Fourth of July with several activities throughout the day ending with huge fireworks displays that typically begin between 9-10 p.m. Unfortunately, this traditional celebration may have a short term impact on air quality especially if meteorological conditions are such that dispersion of the smoke plumes from these events are hindered. The short term effects typically last 2-4 hours and depending on the conditions and duration can substantially impact the particulate loading on PM_{2.5} samples. Therefore in accordance with the Final Rule on Treatment of Data Influenced by Exceptional Events, IDEM has requested the data from Jeffersonville be flagged for this date.

Data: Table 1 shows daily FRM averages prior to, during, and after the event at both Jeffersonville and New Albany. The values track well between the two sites except on July 4. The Wind Rose shows the predominately calm and west southwest winds on this date. The Jeffersonville site was impacted by the Louisville fireworks display, while the New Albany site was not.

Table 1
FRM PM_{2.5} 24-hour Averages

Date	Jeffersonville 18-019-0006	New Albany 18-048-1004
06/28/06	19.4	17.0
07/01/06	28.2	27.2
07/04/06	31.4	21.4
07/07/06	12.6	No Data
07/10/06	28.5	25.1



Pollution rose from July 4, 2006 illustrates either calm or winds coming from the general direction of the larger fireworks displays in Louisville.